Application No.: 10/586,482 Amendment under 37 C.F.R. §1.116

Art Unit: 3637 Attorney Docket No.: 062661

<u>REMARKS</u>

Reconsideration of this application, as presently amended, is respectfully requested.

Claims 1-11 are pending in the present application. Claims 1-11 stand rejected.

Claims 5 and 9-11 were indicated to be allowable if rewritten to overcome the rejection(s)

under 35 U.S.C. §112, second paragraph, set forth in the Office Action and to include all of the

limitations of the base claim and any intervening claims.

Summary of Telephonic Interview

Applicants would like to thank the Examiner, Mr. Jose V. Chen, for the courtesies

extended to applicants' representative during the telephonic interview conducted on April 15,

2010. During the course of the telephonic interview, the rejections under §112, second

paragraph, and under §103 were discussed.

Regarding the §112, second paragraph, rejection of dependent claims 5 and 9-11, no

agreement was reached during the interview. However, as will be discussed in more detail

below, in an effort to expedite prosecution, claims 5 and 9-11 have been amended to attempt to

obviate the §112(2) rejection.

Regarding the §103 rejection, during the interview, the Examiner appeared to agree that

there are differences between the cited prior art and the claimed invention, as applicants'

arguments distinguishing the claimed invention over the cited prior art were not rebutted.

However, during the course of the interview, the Examiner raised a new issue regarding

the clarity of certain language in claim 1. More specifically, the Examiner asserted that the

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language found in lines 6-8 of claim 1 related to the manner in which the guide blocks are

assembled to or joined to the rail is unclear. The Examiner requested that this language be

clarified. In response to the Examiner's request to clarify the claim language, claim 1 has been

amended to clarify the language defining the connection between the rail, the rotary table, and the

guide blocks. Specifically, claim 1 has been amended to recite "wherein a top surface of said rail

opposite to the portion of said rail fitted into the U-shaped cross-sectional opening and an

underside of said rotary table are joined together".

Additional matters that were discussed during the interview that are relevant to the

specific rejections will be noted in the discussion of the specific rejections below.

Claim Rejection - 35 U.S.C. §112, second paragraph

Claims 5 and 9-11 were rejected under 35 U.S.C. §112, second paragraph, for alleged

indefiniteness. The basic rationale for the §112(2) rejection is that the "The limitations in the

claims present a catalog of structures with no clear interconnection of the structures and

definition as to how such structures function or perform." See Office Action, page 2, lines 13-

15.

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Initially, as noted above, claims 5 and 9-11 have been amended to attempt to obviate the

§112(2) rejection by clarifying the relationship between structures and how such structures

function or perform. Support for the proposed amendment to claims 5 and 9-11 is provided, e.g.,

on page 9, lines 20-24; and page 11, lines 8-15.

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However, applicants respectfully request that the following discussion be considered

because it is significant relative to how the claimed structures are "interconnected" and the

definiteness of the claim language with respect to the "interconnections" between structures.

More specifically, during the course of the interview, Applicants representative

emphasized that claims 5 and 9-11 do not "present a catalog of structures with no clear

interconnection of the structures." As can be seen by the highlighted portions below, claims 5

and 9-11 do in fact recite how the various structures are interrelated or interconnected.

a guide block body having load rolling element rolling surfaces that form load rolling element rolling passages in cooperation with said rolling

element rolling surfaces, said guide block body further having rolling

element relief bores associated with said load rolling element rolling

surfaces; and

end plates provided at both ends of said guide block body in the travel direction of said rail, said end plates each having rolling element

direction change passages that form rolling element recirculation passages in cooperation with said load rolling element rolling passages

and said rolling element relief bores.

In response to these arguments, during the interview, the Examiner asserted that the

language "in cooperation with" and "associated with" is not clear because it is broad. In the

Examiner Interview Summary, the Examiner asserts that this language is "indefinite in that there

is no connection to any structure." Thus, it appears that the Examiner would like some sort of

connection to be recited.

However, it is believed that the language "associated with" and "in cooperation with" is

clear and accurately defines the invention. For example, referring to Fig. 5 and the description

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thereof, it can be seen that, in accordance with aspects of the present invention, the rolling

element rolling grooves 21-1, 21-2, 22-1, 22-2 formed in the rail 11 (which correspond, e.g., to

the "rolling element rolling surfaces...of said rail") are not fastened to or connected to the load

rolling element rolling surfaces 32-1, 32-3, 33-1, 33-2 of the guide block 12 (which correspond,

e.g., to the "load rolling element rolling surfaces [of the guide block]"). These surfaces are not

fastened because they must move relative to each other so that the rail 11 can move or rotate.

Thus, it is believed that language such as "a guide block body having load rolling element

rolling surfaces that form load rolling element rolling passages in cooperation with said rolling

element rolling surfaces" is definite because these surfaces form the "load rolling element rolling

passages" in cooperation with each other, and are not interconnected in the sense that they are

necessarily connected by some structural connection or fixed to each other.

Furthermore, there is no requirement that the claims must provide "definition as to how

such structures function or perform" to satisfy §112(2). It is perfectly acceptable to define a

structure structurally and not functionally. Finally, as was noted in the previous Response filed

on August 27, 2009, definiteness of the claim language must be analyzed, not in a vacuum, but in

light of the particular application disclosure.

In summary, although applicants believe that the claim language prior to the current

amendment was clear and definite in the manner required by §112, second paragraph, applicants

have amended the claims to attempt to define the invention in a manner that the Examiner will

find to be clear. However, regarding the Examiner's assertion that there is no "connection to

structure," it is submitted that such connection can only be recited if it actually exists.

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Reconsideration and withdrawal of the rejection under §112, second paragraph, are

respectfully requested.

Claim Rejections - 35 U.S.C. §103

Claims 1, 2, 4 and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu

(USP 4,694,132, previously cited) in view of Takei et al. (USP 5,575,565, previously cited).

Claims 3, 6 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu in view of

Takei et al. as applied to the claims above, and further in view of Gilberti (USP 5,784,932,

previously cited).

Initially, it is noted that independent claim 1 was previously rejected under §102 as being

anticipated by Liu, and claims 2, 4 and 7 were rejected under §103 as being unpatentable over

Liu in view of Takei et al. Independent claim 1 is now rejected over the combination of Liu in

view of Takei et al.

For the reasons set forth below, these rejections are respectfully traversed.

As will be discussed in detail below, it is respectfully submitted that the combination of

Liu and Takei et al. does not disclose or suggest "wherein each of said plurality of guide blocks

includes a U-shaped cross-sectional opening and a portion of said rail is fitted into the U-shaped

cross-sectional opening from above the opening, and wherein a top surface of said rail opposite

to the portion of said rail fitted into the U-shaped cross-sectional opening and an underside of

said rotary table are joined together" as presently recited in independent claim 1.

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In the previous response, it was argued that **Liu** does not disclose or suggest the abovenoted features of claim 1. In the current rejection, the Examiner *acknowledges* that **Liu** does not

teach all claimed features recited in claim 1, and asserts the following:

Liu teaches the structure substantially as claimed as discussed above including a rail, the only difference being that the rail does not include an L-shaped cross section and the guide blocks does [sic] not include a U-shaped cross-sectional opening with the rail partially fitted into the opening from above. However, the patent to Takei et al (at fig. 4) teaches the use of providing a guide rail including an L-shaped cross section partially fitted

into a rail from above to be old. See Office Action, page 3, lines 12-18.

However, as will be discussed below, it is respectfully submitted that, contrary to the

position taken in the present rejection, Takei et al. does not disclose or suggest at least "wherein

each of said plurality of guide blocks includes a U-shaped cross-sectional opening and a portion

of said rail is fitted into the U-shaped cross-sectional opening from above the opening," as

recited in claim 1.

As shown in Figs. 2-4 of Takei et al. a rolling guide unit includes a track rail 11 having

constant curvature and a slide unit 13 that moves on the track rail 11. As shown in Fig. 4, the

track rail 11 is fastened to the bed of, e.g., a machine tool, using bolts 21 (col. 4, lines 24-27).

The track rail 11 has a roughly U-shaped cross section (col. 3, lines 37-38).

The slide unit 13 is inserted from above between side walls 11c, 11d of the track rail 11

so that its lower half is between the side walls 11c, 11d of the track rail 11. The slide unit 13

includes a rolling element circulation path 14 in which pluralities of rolling elements 15

circulate. See col. 3, lines 45-56.

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However, it is submitted that Takei et al. clearly does not disclose or suggest "wherein

each of said plurality of guide blocks includes a U-shaped cross-sectional opening and a portion

of said rail is fitted into the U-shaped cross-sectional opening from above the opening".

More specifically, first, unlike the claimed invention, it is the track rail 11 of Takei et al.

that has the "roughly U-shaped cross section," and not a plurality of guide blocks. Second, it is

the slide unit 13 of Takei et al. that is inserted (or fitted) from above between in the U-shaped

opening of the track rail 11. Unlike the claimed invention, the slide unit 13 is not a "rail fitted

into the U-shaped cross section" as claimed. That is, unlike the slide unit 13, the claimed "rail"

is "a ring-shaped integrated rail having no discontinuity in a travel direction thereof".

Accordingly, Takei et al. does not disclose or suggest "wherein each of said plurality of

guide blocks includes a U-shaped cross-sectional opening and a portion of said rail is fitted into

the U-shaped cross-sectional opening from above the opening," as recited in claim 1, and

therefore does not alleviate any of the deficiencies of Liu.

Further, it is respectfully submitted that none of the cited references disclose or suggest

the feature "wherein a top surface of said rail opposite to the portion of said rail fitted into the

U-shaped cross-sectional opening and an underside of said rotary table are joined together".

The rejection relies on Liu to teach this feature. However, Liu teaches "The table top platform

may be quickly and easily removed from the turntable 10 by lifting the platform from contact

with the spider drive member 20." See col. 3, lines 59-62.

Thus, Liu teaches that a rotary table is in contact with the portion that the Examiner

considers corresponds to a rail (i.e., the element 26); however, unlike the claimed invention, Liu

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does not teach that the rotary table is "joined together" with the element 26, which the Examiner

considers to correspond to the claimed rail.

Therefore, neither Liu nor Takei et al. disclose or suggest the claimed "wherein a top

surface of said rail opposite to the portion of said rail fitted into the U-shaped cross-sectional

opening and an underside of said rotary table are joined together".

Finally, it is noted that the Gilberti reference does not alleviate any of the above-noted

deficiencies of Liu and Takei et al.

A rejection under §103 requires that the combination of teachings applied against the

claims must disclose, suggest or render obvious all claimed elements. In view of the discussion

above, it is respectfully submitted that the combination of Liu and Takei et al. does not disclose,

suggest or render obvious all claimed elements. Therefore, it is submitted that independent claim

1, and claims dependent therefrom, are not obvious in view of the combination of Liu and Takei

et al. Accordingly, reconsideration and withdrawal of the rejection of claims 1, 2 4 and 7 under

§103 are respectfully requested.

Gilberti does not alleviate any of the deficiencies of Liu and Takei et al. Therefore,

claims 3, 6 and 8 patentably distinguish over the combination of Liu, Takei et al. and Gilberti

for the same reasons discussed above with respect to claim 1 by virtue of their dependency

thereon.

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CONCLUSION

In view of the foregoing, it is submitted that all pending claims are in condition for

allowance. A prompt and favorable reconsideration of the rejection and an indication of

allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application,

the Examiner is invited to contact the undersigned attorney at the telephone number indicated

below to arrange for an interview to expedite and complete prosecution of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate

extension of time. The fees for such an extension or any other fees that may be due with respect

to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

William M. Schertler

in M. Schutt

Attorney for Applicants

Registration No. 35,348

Telephone: (202) 822-1100 Facsimile: (202) 822-1111

WMS/ar